

CLAIMS:

1. A multi-use assay system comprising:
 - a housing adapted to hold the removable test strip in position relative to the optics system contained in the housing;
 - 5 a test strip adapted to align to the optics system;
 - an optics block holder adapted to align the test strip to the test pad;
 - 10 an optics block holder for positioning an optics system formed from lens to focus the light from an emitter and to a detector;
 - an optics block holder which is adapted to mount in the electronics printed circuit board such that it aligns to the alignment fixturing of the emitter and
15 detector placement machine; and
 - a processor for processing the data from the emitter and detector.
2. A multi-use assay system comprising:
 - a housing adapted to hold the removable test strip in position relative to the
20 optics system contained in the housing;
 - a test strip adapted to align to the optics system by means of center line fixturing;

an optics block holder keyed to align the test strip to the center line of the test pad;

5 an optics block holder positioning an optics system formed from lens to focus the light from the emitter and to the detector;

an optics block holder which is keyed to mount in the electronics printed circuit board such that it aligns to the alignment fixturing of the emitter and detector placement machine;

10 a processor for processing the data from the emitter and detector; and
a removable single use electronic calibration system for providing the processor the strip specific calibration information.

3. A multi-use assay system comprising:

a housing adapted to hold the removable test strip to the optics system;

15 a test strip adapted to align to the optics system by means of center line fixturing;

an optics block holder keyed to align the test strip to the center line of the test pad;

an optics block holder positioning an optics system formed from lens to focus the light from the emitter and to the detector;

an optics block holder which is keyed to mount in the electronics printed circuit board such that it aligns to the alignment fixturing of the emitter and detector placement machine;

a processor for processing the data; and

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a removable single use electronic calibration element for providing the processor strip specific calibration information containing the number of test strips associated with the calibration element and containing the reaction information of the test strips.

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4. A system of claim 3 where the electronic calibration element backs up the meter specific calibration information.

5. A system of claim 3 wherein the electronic calibration element is a chip, master strip or code.

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6. A calibration system of claim 3 where the electronic calibration element contains the expiration date of the test strips provided with the calibration element.

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7. An optics alignment system comprising a printed circuit board containing precision holes for use by the die attach equipment to align the LED and photodetectors;

an aligned optics block holder;

an aligned optics lens;

an aligned test strip; and

a shielding system to prevent ambient light from entering the optics area.